PRATT STREET POWER PLANT
South side of Pratt Street on Pier 4
Baltimore City
Maryland

HAER No. MD-101

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Northeast Region
U.S. Custom House
200 Chestnut Street
Philadelphia, PA 19106

HAER
MD
4-BALT
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HISTORIC AMERICAN ENGINEERING RECORD

Pratt Street Power Plant **HAER No. MD-** 101

Location: South of Pratt Street on Pier 4
Baltimore, Maryland

UTM: 18.361360.413419560
Quad: Baltimore East, Maryland

Dates of Construction: 1900-1909; ca. 1984

Engineer: P.O. Keilholtz (electrical and mechanical engineer)

Present Owner: City of Baltimore

Present Occupants and Uses: Power Plant (Vacant)
Chart House Restaurant (Restaurant)

Significance: The Pratt Street Power Plant is a striking example of early 20th century industrial architecture and one of 11 buildings to survive the Baltimore Fire of 1904. The central and southern buildings are the work of Baldwin and Pennington, a noted Baltimore architectural firm. The Power Plant, still a dominant structure in Baltimore's Inner Harbor, was constructed to serve as the principal power source for the United Railways and Electric Company. In 1984 the Power Plant was converted to an entertainment center. No boilers or machinery survive although some original equipment may remain as part of a "small historical exhibit" mounted within the now defunct entertainment center.

Project Information: Betty Bird, 2025 Eye Street, N.W., Suite 801, Washington, D.C. prepared documentation under contract to Christopher Columbus Center Development, Inc. from October 1992 to March 1993. The Christopher Columbus Center, an underwater archeology and marine research and education center, will construct a facility on Piers 5 and 6 that will require reinforcement of deteriorated concrete bulkheads on Piers 4, 5, and 6. Reinforcement will be constructed in front of existing material, obscuring underwater intake wells for the Power Plant. This documentation was completed pursuant to 36 CFR 800.8 to mitigate the adverse effects of this undertaking. The interior of the Power Plant was not inspected for this project. The following narrative was compiled from the National Register nomination, historic drawings, and articles in two early 20th century journals.

DESCRIPTIVE INFORMATION

The Pratt Street Power Plant is part of a complex consisting of the Power Plant and two smaller shop structures (now combined as the Chart House Restaurant). The Power Plant, constructed between 1900 and 1909, consists of three massive interconnected brick and terra cotta structures: a northern engine house on Pratt Street (1905-1909); a central boiler house dominated by four huge stacks adjoining the engine room on the south (1900-1902); and the southern engine house (ca. 1903). After the Baltimore fire of 1904, which destroyed most of downtown Baltimore, the northern engine house was rebuilt on the site of an earlier engine house that was demolished because of fire damage. The National Register Nomination notes that the steel-frame buildings are supported by pilings and concrete mats.[1] The two smaller structures post-date the 1904 fire and appear in the 1914 Sanborn Map of the site as a shop and supply house.

All of the buildings are based on Italian renaissance precedent. The north building of the Power Plant displays the most elaborate architectural detail. The base has a brick rusticated watertable and brick rusticated quoins. The central portion features full-height brick pilasters springing from a brick beltcourse. Full-height windows are surmounted by terra cotta arches with keystones. The central portion is topped by a full cornice with triglyphs. The top of the building is treated as an attic story with simple rectilinear dormers punctuating a slate Mansart roof on the east and west sides of the building. A stepped parapet at the north end of the building bears the legend, "United Railways & Electric Company."

The central boiler house is the tallest building in the complex. Its prominence is further enhanced by four large stacks that dominate the Baltimore skyline from the harbor. The central boiler house also displays tripartite vertical organization. Its base rises from a granite water table and is topped by a beltcourse. Full-height pilasters rise from the beltcourse. The top portion of the building features an arcade story topped by stepped gables on the east and west. The four massive stacks punctuate the monitor roof at the ridge line.

The southern engine house is detailed with full-height round-arched windows between pilasters. The engine house is topped by a stepped gable roof with the ridge running east to west. The building also features a monitor roof at the ridge line.

The original design of the Power Plant incorporated a coal hoist on the west side of the boiler house. In 1979, the City of Baltimore demolished the hoist. By 1985, when the rehabilitated building opened as an entertainment center, all of the large machinery and boilers had been removed from the building. The National Register Nomination describes the interior of the building after rehabilitation:

> It is based around the theme that the power plant is the exposition hall of an imaginary inventor, Phinias T. Flagg, housing his fantastic inventions, discoveries and wonders. The entrance to the plant at the southern engine house leads to the grand hall. The large open space of the engine house has been retained, although all of the machinery has been removed. Among the extant features are: the original steel roof truss system,

[1]National Register Nomination for the Pratt Street Power Plant, p. 7-1.

> windows, white glazed brick walls, and raised platform which supported a turbine above a condensor pit. The space has been embellished with a curving central stair and a mezzanine level. Shops are located above and below the mezzanine on the southern end of the hall. A fantasy submarine is located in the pit below the platform which once supported a turbine and now supports Cafe Flagg. Fantastic balloons and flying devices hang from the ceiling. Other new architectural elements include tile flooring, decorative light fixtures, brass railings and glass elevator to the mezzanine.
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> Access to the boiler house is from the mezzanine level. The smoke stacks have been retained within this building, as well as much of the steel girders and trusses. Spiral stairways have been built around the two end smoke stacks leading to major special effects attractions. The "Circus of the Mysterious" is below this grand plaza level, while the "Laboratory of Scientific Wonders" is on an upper level. Arcade games are located on a mezzanine level which surrounds the grand plaza. A small historical exhibit featuring equipment, as well as original photographs and articles on the power plant is also housed in the boiler house.
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> The northern engine house consists of the Magic Lantern Theatre and Food Garden Cafeteria accessible from the arcade game mezzanine level. The theatre [sic] is a large auditorium with lower level seating and a balcony. A stage show of mechanical devices is featured. The sensorium is a rectangular, "movie theatre" type space with raised seating. The northern engine house also houses the offices for the plant, delivery space, and support services.[2]

The National Register nomination notes that a 6 ft. gap between the north building and the center building has been bridged by a "recent" brick wall[3] which may also date to the ca. 1984 rehabilitation. The Chart House Restaurant had consolidated and rehabilitated the shop buildings as a bar and restaurant prior to the 1987 date of the National Register nomination.

HISTORICAL INFORMATION

The City and Suburban Railways Company constructed the first power plant on this site in 1895. This 3500 hp plant, which was demolished after the Baltimore fire of 1904, was designed by P.O. Keilholtz, chief mechanical and electrical engineer for the company. The siting of the plant on Pier 4 permitted coal to be shipped by barge and took advantage of its location on the pier to use harbor water for cooling. Elevated coal bins on the west side of the pier were adjacent to the boiler room. Although the plant used city water for feed pump supply, it also took advantage of its waterfront location by constructing intake and discharge wells for cooling water for cooling and condensing.

> Two supply wells are provided in the bay on the boiler room side of the station. Many fruit vessels unload their cargoes in this port, and much decaying vegetable matter is dumped here, necessitating an elaborate system of gates, screens and strainers for these

[2]National Register Nomination for the Pratt Street Power Plant, pp. 7-4 - 7-5.
[3]National Register Nomination for the Pratt Street Power Plant, p. 7-2.

> injecting wells. Mr. P.O. Keilholtz, electrical and mechanical engineer for the railroad company has designed a very satisfactory well, which has materially lessened the trouble from this source. The injection piping is cast iron flanged pipe and is so arranged that water for any condenser may be taken from either well, while the other is being cleaned. A separate valve is provided at each condenser to regulate the flow of water or to cut out the condenser.
>
> Discharge pipes from the air pumps are connected together into one large main, which is carried out through the engine room basement wall below the street level and discharged into the bay on the opposite side of the power house from the injection supply. A cut-out valve is provided in each pipe near the air pump. The discharge pipes are of cast iron flanged and the valves are brass mounted.[4]

In 1899 several car lines merged to form the United Railways and Electric Company, which then took over operation of the Pratt Street Power Plant. The new company inherited the nine power houses of the formerly independent railway operations. The Pratt Street Power Plant, which was the largest of these power houses, was a logical choice for expansion:

> The Pratt Street station . . . is well located near the theoretical load center of the system and has the further advantage of being situated on tide water front, giving an abundance of water for cooling and condensing purposes without cost, and also permitting the delivery of coal immediately alongside the boiler room. The station is also situated not far from the center of the city where the bulk of the heavy traffic is concentrated. In consideration of these advantages it was determined to considerably increase the generating capacity at this point. . .[5]

By 1900 the company developed plans for a new boiler house and engine house south of the earlier building, which was to be remodeled.[6] The new facility was designed by Pierre Otis Keilholtz (1837-1922), consulting engineer for United Railways.[7] Baldwin and Pennington, noted Baltimore architects, designed the buildings with Purdy and Henderson, consulting architects from New York.[8] The new buildings were operating by 1903.[9] The system of intake and discharge wells was maintained in the expanded plant. A 1902 article noted that, "the water for condensing purposes is taken from one slip and returned to the other so the temperature of the water in the first slip is not raised."[10]

On February 7, 1904 a major fire destroyed most of Baltimore's downtown including structures on the piers that extended into the Inner Harbor. While the 1895 building at the north of the complex suffered major damage, the central boiler house and southern engine house emerged relatively

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[4]"Power Plant of the City and Suburban Railway Co., Baltimore, MD.," p. 3.
[5]"Increased Power Facilities for the United Railways & Electric Co., of Baltimore, Md., p. 331.
[6]National Register Nomination for the Pratt Street Power Plant, p. 8-7.
[7]Birth and death dates from National Register Nomination; other information from "Increased Power Facilities for the United Railways & Electric Co., of Baltimore, Md.," p. 337.
[8]National Register Nomination for the Pratt Street Power Plant, p. 8-7.
[9]National Register Nomination for the Pratt Street Power Plant, p. 8-8.
[10]"Increased Power Facilities for the United Railways & Electric Co., of Baltimore, Md.," p. 335.

unscathed. The Pratt Street Power Plant was one of only 11 structures within the Burnt District to survive the fire. Because of fire damage and the Burnt District Commission's widening of Pratt Street, the north building was demolished and rebuilt.[11] The architect for the new north building is not known. The National Register nomination notes that it was probably designed by Simmonson and Pietsch.[12] The intake and overflow wells were again reworked after the fire. The installation of the wells substantially delayed reconstruction of the pier. Although the Harbor Board was responsible for constructing bulkheads and rebuilding the piers, the United Railways and Electric Company installed the wells themselves some time after 1910.[13] Later diagrams of the Power Plant show 5 intake wells situated on the west side of the pier and 5 discharge wells on the east. A discharge well for overflow is shown adjacent to Discharge Well No. 4.[14] Please see Baltimore Inner Harbor: Pier 4 (HAER No. MD-86-C) for further information about the reconstruction of Pier 4

By 1920, the Power Plant served as a distribution point for power generated at Holtwood, producing power only during peak periods. Consolidated Gas, Electric Light and Power Company, a forerunner of Baltimore Gas and Electric, purchased the plant in 1921. The City of Baltimore acquired the facility in 1977 after Baltimore Gas and Electric ceased to use it in 1973. A development competition awarded the Power Plant to the Six Flags Corporation, which redeveloped it as an entertainment center. The Power Plant reopened in July 1985.[15] The entertainment center was unsuccessful and the building has been vacant for several years.

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[11]National Register Nomination for the Pratt Street Power Plant, p. 8-9.
[12]National Register Nomination for the Pratt Street Power Plant, p. 8-9.
[13]*Harbor Board Report for 1909*, p. 15.
[14]"Diagram Showing Location of Condensing Water Intake and Discharge Wells" (1919)
[15]National Register Nomination for the Pratt Street Power Plant, p. 8-10.

SOURCES OF INFORMATION

For general sources and additional sources of information for Pier 4, please see Baltimore Inner Harbor, Pier 4, HAER No. MD-86-C.

A. Engineering Drawings:

Cross-Section Through Boiler House showing discharge well in "Increased Power Facilities for the United Railways & Electric Co., of Baltimore, MD.," *Street Railway Review* (June 20, 1902), p. 335.

Coal Hoist Tower, in "Increased Power Facilities for the United Railways & Electric Co., of Baltimore, MD.," *Street Railway Review* (June 20, 1902), p. 336.

"Diagram Showing Location of Condensing Water Intake and Discharge Wells," (Drawing A-552) January 23, 1919.

"Layout of Discharge Water Piping for No. 4 - 20,000 K.W. Turbine," (Drawing C-503) April 25, 1918 with revisions June - August 1918.

"Water Discharge Well and Tunnel for No. 4," (Drawing A-519) June 24, 1918 Revisions.

B. Historic Views:

Please see Baltimore Inner Harbor (HAER No. MD-86) for information on general views of the Inner Harbor, including the Power Plant. The following views of Pier 4 depict the Power Plant.

Keith, Robert C. *Baltimore Harbor: A Picture History*. Baltimore: Ocean World Publishing, Inc., 1982.

Bay vessels unloading on the east side of Pier 4 in the 1930s and 1940s (pp. 110 and 112)
Aerial view of Pier 4 in 1948 (p. 113).

The Peale Museum. *Harbor 1854-1955: A Century of Photographs of the Port of Baltimore.* Baltimore: Peale Museum, ca. 1955. (MD.XHE554.B2A34)

"Fleet of Bugeyes in the Long Dock at Marsh Market," prob. pre-1904, (p. 13)

View of "Exterior of New Boiler House" (south building) showing coal hoist in "Increased Power Facilities for the United Railways & Electric Co., of Baltimore, Md." in *Street Railway Review*, 12 (June 20, 1902), p. 331.

C. Bibliography:

Please see Baltimore Inner Harbor, Pier 5 (HAER No. MD-86-A) and Baltimore Inner Harbor, Pier 4 (HAER No. MD-86-B) for additional bibliography relating to Pier 4.

Burnt District Commission Reports. (Enoch Pratt)

City Engineer Reports. (Enoch Pratt)

Harbor Board of Baltimore. *Reports of the Harbor Board*, 1904-1914. Enoch Pratt)

"Increased Power Facilities for the United Railways & Electric Co., of Baltimore, Md." in *Street Railway Review*, 12 (June 20, 1902), pp. 331-337.

National Register Nomination for the Business and Government Historic District, Baltimore, Maryland. (Maryland Historical Trust)

"Power Plant of the City and Suburban Railway Co., Baltimore, Md." in *Power* 16:7 (July 1896), pp. 1-5.

Sanborn Fire Insurance Maps

Shoken, Fred. National Register Nomination for Pratt Street Station, Pier Four Power Plant, 1985.

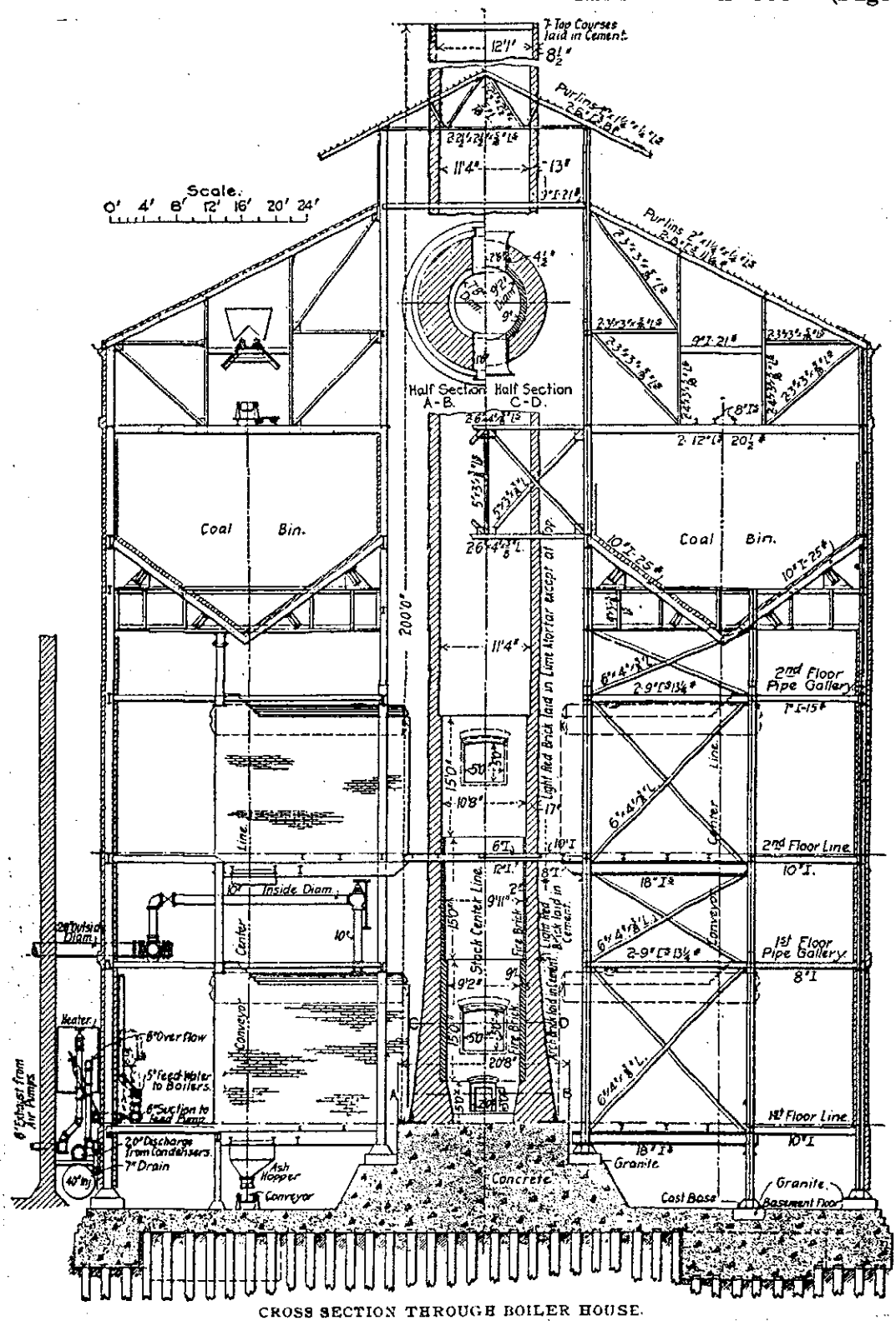
Simmons, Scott E. *An Investigation of the Archaeological Resources Associated with Piers 5 and 6 and the Harrison's at Pier 5 Complex (18BC62 and 18BC63) Baltimore, Maryland.* Baltimore: Baltimore Center for Urban Archaeology, 1990.

D. Likely sources not yet investigated:

The National Register Nomination contains an extensive bibliography on the Power Plant, which could provide additional information.

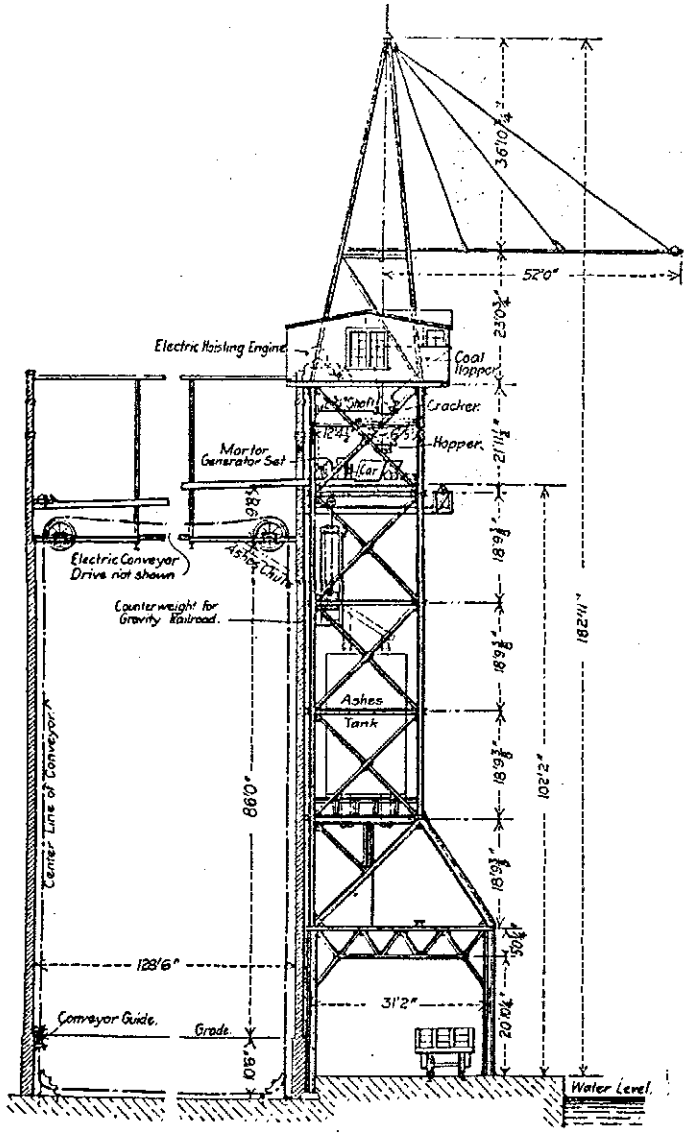
N

Source: Baltimore East Quadrangle



CROSS SECTION THROUGH BOILER HOUSE.

Source: "Increased Power Facilities for the United Railways & Electric Co." (1902), p. 335.



COAL HOIST TOWER.

Source: "Increased Power Facilities for the United Railways & Electric Co." (1902), p. 336.